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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,266	06/01/2006	Takahisa Ozawa	80508(302721)	3158
7590 03/31/2010 EDWARDS ANGELL PALMER & DODGE LLP James E. Armstrong, IV P.O. Box 55874 Boston, MA 02205			EXAMINER	
			GINSBERG, OREN ISAAC	
			ART UNIT	PAPER NUMBER
			3764	
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			03/31/2010	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/581,266	<b>Applicant(s)</b> OZAWA ET AL.
	<b>Examiner</b> OREN GINSBERG	<b>Art Unit</b> 3764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 31 December 2009.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-14 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-14 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 1 June 2006 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/GS-68)  
Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 31 December 2009 has been entered.

***Specification***

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

***Claim Objections***

Claim 1 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitaker 3,463,145 in view of Hoshino 2002/1063231.

Regarding claim 1-3, 5-6, 11, Whitaker discloses an exercise device comprising a base 5 fixed in place, and a support portion 23 configured to support a part of the user's body such that at least a part of the user's own weight acts on a leg including a femoral region (deemed the user's legs dangle off the edge of the seat and thus touches the ground), a control unit 24, a drive source 12 controlled by the control unit, a coupling mechanism 6-10 to which the drive source is connected, the coupling mechanism is configured to movably couple said support portion to said base (figures 1-2) such that a load acted on said leg by the user's own weight varies according to a relative positional displacement between a foot position and a position of center of gravity of the user (the change in tilt of the seat changes the center of gravity of the user and thus changes the amount of force the user has to use in their legs to balance on the seat against the supporting surface), and also configured to limit a movable direction of said support portion such that a direction of the relative positional displacement between the foot position and the position of center of gravity is limited to a direction of

flexion and extension of a knee joint of the user (tilt in the forward and rearward direction as seen in figures 1-2).

Whitaker teaches the invention as substantially claimed, see above. However, they fail to disclose: the support portion comprises a saddle.

Hoshino teaches the support portion comprises a saddle for supporting a user's buttocks (figure 1), the saddle has a pair of curved recessed 14, 15 at its outer periphery configured that the femoral region of the user fit the recesses, the curved recesses are configured such that the open angle between the user's leg substantially corresponds to flexion and extension of the left and right knee joints (figures 8-9) under the condition that the user is in a sitting posture on the saddle and places their feet on the foot positions, the curved recesses are configured such that an open angle between the user's legs is in a range of 30-70 degrees (figure 8), a first bump formed at the forward side (adjacent stitching 36 at the front of the saddle as seen in figure 1), a second bump formed at the rearward side 19, the curved recesses are provided between the first and second bump (figure 1), a forward position of the saddle (next to elements 14, 15 by the front of the saddle as seen in figure 1) is positioned to be lower than a saddle center position with the curved recesses, and a rearward portion of the saddle 19 is positioned to be higher than the saddle center portion.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Whitaker's seat with Hoshino's ergonomic saddle in order to place the user's center of gravity directly over the seat to make the seat more comfortable and

reduce aches and pains from sitting in the saddle for prolonged periods, as taught by Hoshino (paragraphs 0002, 0009).

Regarding claim 4, Whitaker in view of Hoshino teaches the invention as substantially claimed, see above. However, they fail to disclose: the curved recesses are configured such that an inclination angle of the femoral region of the user relative to a vertical direction is in a range of 30-50 degrees under the condition.

However, it has been held in *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) that “[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” See in MPEP 2144.05 II. Whitaker does not positively disclose the range that the seat tilts forward, thus not providing the angle of inclination of the femoral region of the user. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the Whitaker seat tilt forward such that it provides an angle of inclination for the femoral region of the user within the range of 30-50 degrees in order to optimally exercise the user’s legs.

Regarding claims 7, 12, Whitaker in view of Hsieh, in view of Lyons, and further in view of Hoshino teaches the invention as substantially claimed, see above. However, they fail to disclose: a backrest detachably attached to a rear portion of the saddle.

However, it has been held in *In re Dulberg*, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961) that if it is desirable to make a part removable that is not manually removable, then it would have been obvious to one of ordinary skill in the art make that part removable. See in MPEP 2144.04 V C. Therefore, it would have been obvious to

one of ordinary skill in the art at the time of the invention to make the backrest detachably attached to a rear portion of the saddle if the backrest needs to be repaired or replaced.

Claims 8, 10, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitaker in view of Hoshino and further in view of Bavaresco 6,357,825.

Whitaker in view of Hoshino teaches the invention as substantially claimed, see above, and further teaches the saddle is symmetrical along an axis in the length direction (Hoshino: figure 1).

Whitaker in view of Hoshino teaches the invention as substantially claimed, see above. However, they fail to disclose: a saddle-length adjuster configured to change a length of the saddle in a forward and rearward direction, and a saddle-angle adjuster configured to change an inclination angle of an inner surface of the curved recess.

Bavaresco teaches a saddle-length adjuster 10, 11, 12, 18", 19" (figures 1, 2, 7) configured to change a length of the saddle in a forward and rearward direction, and a saddle-angle adjuster 10, 11, 12, 18", 19" (figures 1, 2, 7) configured to change an inclination angle of an inner surface of the curved recess.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hoshino's saddle with Bavaresco's adjustable saddle in order to reduce stress to the buttocks and backbone, as taught by Bavaresco (column 2 lines 40-50).

Claims 8-9, 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitaker in view of Hoshino and further in view of Jamieson 608,682.

Whitaker in view of Hoshino teaches the invention as substantially claimed, see above, and further teaches the saddle is symmetrical along an axis in the length direction (Hoshino: figure 1).

Whitaker in view of Hoshino teaches the invention as substantially claimed, see above. However, they fail to disclose: a saddle-width adjuster configured to change a length of the saddle in a width direction, and a saddle-length adjuster configured to change a length of the saddle in a forward and rearward direction.

Jamieson teaches a saddle-width adjuster 12, 15 (by sliding the seat outward along rail 12 as seen by the dotted lines in figure 1) configured to change a length of the saddle in a width direction, and a saddle-length adjuster 14, 15 (by sliding one of the sections forward thereby making the overall length of seat longer) configured to change a length of the saddle in a forward and rearward direction.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hoshino's saddle with Jamieson's adjustable saddle in order to adjust the seat to the most comfortable position for the user, as taught by Jamieson (column 1 lines 12-21).

#### ***Response to Arguments***

Applicant's arguments filed 31 December 2009 have been fully considered but they are not persuasive.

Applicant argues that "None of the cited references teaches, mentions, or suggest a coupling mechanism, a drive source and a control unit, as disclosed from page 4, line 30 to page 5, line 1 of the specification of the instant application. In addition, each of the cited references fails to teach the mechanical configuration of the present invention, obtained by a combination of a saddle, a coupling mechanism, a drive source and a control unit, and also lacks the motivation. In the present invention, it is possible to limit a direction of the relative positional displacement between the foot position and the position of center of gravity, to a direction of flexion and extension of knee joint through a saddle (22), a coupling mechanism (e.g., 4), a drive source (e.g., 6) and a control unit (10), especially by the combination of the saddle (22) and the coupling mechanism."

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OREN GINSBERG whose telephone number is (571) 270-3074. The examiner can normally be reached on Mon-Fri, alternate Fri off, 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LoAn Thanh can be reached on (571) 272-4966. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/O. G./  
Examiner, Art Unit 3764

/LoAn H. Thanh/  
Supervisory Patent Examiner, Art Unit 3764